USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Plant Fact Sheet

INDIANGRASS

Sorghastrum nutans L.

Plant Symbol = SONU2

Contributed by: USDA NRCS Plant Materials Program

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Uses

Erosion control: Indiangrass can be used on critical-area seeding, for roadside cover, and on areas subject to wind erosion.

Livestock: Indiangrass can be used singly or in mixtures for livestock forage on rangeland, pastureland, and hayland.

Wildlife: Indiangrass is excellent for wildlife habitat and food for deer.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Weediness

This plant may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed. Please consult with your local NRCS Field Office, Cooperative Extension Service office, or state natural resource or agriculture department regarding its status and use. Weed information is also available from the PLANTS Web site at plants.usda.gov.

Description

Sorghastrum nutans (L). Nash, indiangrass, is a native, perennial, warm-season grass, and a major component of the tall grass vegetation which once dominated the prairies of the central and eastern United States. Indiangrass grows 3 to 5 feet tall. Even as a young plant, it can be distinguished from other native grass species by the "rifle-sight" ligule at the point where the leaf attaches to the stem. The leaf blade also narrows at the point of attachment. The seed head is a single, narrow, plume-like panicle of a golden brown color. The seed is light and fluffy with small awns attached. There are about 175,000 seeds per pound.

Adaptation and Distribution

Indiangrass is adapted to the Northeast west to Texas and North Dakota. It grows best in deep, well-drained floodplain soils. However, it is highly tolerant of poorly to excessively well-drained soils, acid to alkaline conditions, and textures ranging from sand to clay.

For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

Establishment

Indiangrass and other warm-season grasses require a soil temperature above 50°F for satisfactory germination. Dormant seedings have not been successful. The optimum time to plant is from early May to late June.

The seed is light and has small awns attached. Debearding the seed removes the awns to produce a free-flowing product. The planting site should be free of perennial or noxious weeds. A moist, firm seedbed is essential. Firming the soil with a roller packer before seeding helps to ensure that the seed is placed at the recommended seeding depth of ½ to ¾ inch.

If seed is drilled for solid stands, use 6 to 8 pounds per acre rate PLS (pure live seed). For broadcast

seedings, the rate should be between 12 and 15 pounds per acre. Seeding depth is ¼ inch. If seed is broadcast or hydroseeded, it is important to "incorporate" the seed by tracking with a heavy machine to improve the seed to soil contact. Indiangrass has strong seedling vigor, but stands are slow to develop where competition from broadleaf weeds and cool-season grasses are heavy. New seedings into fine-textured soils where weeds are persistent may require no-till establishment to minimize the amount of exposed weed seeds. The cool-season grasses must be controlled with a contact herbicide before seeding. Also, indiangrass shows tolerance to most broadleaf herbicides. It is important to follow label instructions for application amounts and grazing requirements.

The most common cause of failure of warm-season grasses is a loose seedbed. Conventionally-tilled seedbeds should be packed before and especially after seeding. The seedbed should be firm enough to show only a light imprint when stepped on. When using a no-till drill, be sure the coulter furrows are closed to avoid seed exposure and drying. This can be accomplished by cultipacking after the drilling operation.

Management
Fertilization to moderate levels of phosphorus and potassium are recommended for establishment. Nitrogen applications are not recommended until the grass is established and well above the competing weeds. Fertilizer may be applied late in the first summer of establishment at a rate of 20 to 40 pounds per acre of phosphorus and potassium or in the early summer of the second year at 40 to 80 pounds per acre rate. In future years fertilize as needed to enhance vigor and production of forage. For critical area seedings, no additional fertilization is necessary.

If well-established stands of indiangrass are properly managed and maintained, they should not require replanting. Poor stands can be rejuvenated by using proper management practices, such as controlled grazing, the application of recommended rates of herbicides and fertilizer, and prescribed burning, where permitted, before the beginning of spring growth. Nitrogen, phosphorus, and potassium fertilizer should be applied according to soil tests.

In rotational grazing systems, remove no more than ½ the above ground growth (no shorter than 8 to 12 inches). With care, the stand will last indefinitely. Forage quality will remain high until the seed head emerges. Grazing should begin from mid to late June when grasses reach 12 to 16 inches in height. Overgrazing can damage the stand and should be stopped when the plants are grazed to within 6 inches of the ground. If regrowth of more than 12 inches takes place, the plants can be regrazed to 6 to 12 inches. Leaving this much stubble before frost allows the plants to store carbohydrates and ensures the production of vigorous plant growth in the spring.

Pests and Potential Problems
There are no known serious pests of indiangrass.

Control
Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA, NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

Cultivars, Improved, and Selected Materials (and area of origin)
'Holt' (NE), 'Llano' (NM), 'Lometa' (TX), 'Osage' (KS and OK), 'Oto' (NE and KS), 'Rumsey' (IL), 'Tomahawk' (ND and SD); Cheyenne (informal release, OK); source identified releases from northern, central, and southern Iowa, and northern and western Missouri.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site<http://plants.usda.gov> or the Plant Materials Program Web site <http://Plant-Materials.nrcs.usda.gov>